

*Lake 1912*

# CITY OF McKEESPORT

PENNSYLVANIA.

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Twenty - fifth Annual Report  
of the Board *of* Water and  
Lighting Commissioners to  
City Councils for Year End-  
ing December 31st, 1907.



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Dupl. 1912



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CITY OF McKEESPORT.

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25TH ANNUAL REPORT

—OF THE—

Board of *Water and* Lighting  
Commissioners

—TO—

CITY COUNCILS

—FOR THE—

YEAR ENDING DECEMBER 31ST,

1907.

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1908.  
HUTCHISON & BROADBENT, PRINT,  
McKEESPORT, PA.

Dupl. 1912

by the water

1912

## OFFICERS AND EMPLOYEES OF WATER DEPARTMENT.

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### Board of Water and Lighting Commissioners.

J. B. AYRES, CHAIRMAN.....Term expires April, 1908  
WM. EVANS.....Term expires April, 1909  
GEORGE B. HERWICK.....Term expires April, 1910

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Superintendent, T. H. VERNER.

Secretary, D. S. TOBIN.

City Plmmbler, ANDREW P. NELSON.

Inspector, GEO. D. MOFFAT.

Meterman, S. M. STRONG.

Street Foreman, D. B. HOUGH.

Chief Engineer, MORITZ WOLF.

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### Assistant Engineers:

JOS. B. SMITH,	WM. E. NEIMAN,
SAMUEL HUTCHINSON,	JONAS CHERRINGTON,
CHAS. H. TUCKER,	JOHN RUPPERT.



# REPORT OF THE Board of Water Commissioners.

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McKeesport, Pa., January 1, 1908.

To the Select and Common Councils of the  
City of McKeesport :

Gentlemen:—In compliance with the Act of Assembly governing cities of the third class, the Board of Water and Lighting Commissioners respectfully submits its Seventeenth Annual Report, being the twenty-fifth annual report of this Department.

The receipts and expenditures were as follows, as shown by the report of the Secretary of the Board, to which we refer you for a more detailed report:—

Receipts from all sources .....	<u>\$72,740.04</u>
Expended for maintenance and repairs....	\$38,873.19
Expended for construction .....	22,540.32
Expended for meters and meter repairs...	4,024.27
Water, Tenth ward.....	<u>4,014.23</u>
Total expenditures.....	\$69,452.01

The number of permits for service connections issued during the year was 210, a decrease of 107 from the year 1906, making the total number to date 5,963. As shown by the Superintendent's report, the average number of gallons of

water pumped per day was 4,851,780, an increase of 427,848 gallons per day over 1906.

The total amount of water pumped in 1907 was 1,770,899,795 gallons.

The machinery and buildings are in good condition, of which the Superintendent treats fully in detail.

Your Board of Water and Lighting Commissioners would report satisfactory progress being made in the Water Treating Plant, which was commenced in July, 1907, and in accordance with the plans adopted. Work was suspended during the extreme winter weather, but notwithstanding this suspension we believe the work will be completed on contract time. The status of the work at present being about fifty per cent. complete.

J. B. AYRES,  
GEO. B. HERWICK,  
WM. EVANS,  
Commissioners.

## REPORT OF THE Superintendent.

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To the Honorable Board of Water and Lighting Commissioners of the City of McKeesport, Pa.:

Gentlemen:—I herewith submit my report of the condition and operation of the Water Department for the year ending December 31, 1907.

### ENGINES AND BOILERS.

The two Blake engines and the Wilson-Snyder engine at the main pumping station are in good condition.

The Worthington engines on the well system and at the high service pumping station are all in good condition.

The boilers at both pumping stations are in fairly good condition.

The new boilers now being erected at the main pumping station will be of great benefit to us when completed and in operation.

During the year ending December 31, 1907, the Blake engines were operated 8,223 hours.

During the year ending December 31, 1907, the Wilson-Snyder engine was operated 1,205 hours.

The average daily pumping time for the year was 23 hours, 42 minutes, per day. The total amount of water pumped during the year was 1,770,899,795 gallons, averaging 4,851,780 gallons per day.

The cost of all repairs at the main pumping station in 1907 were \$1,517.54. The cost of all repairs at the high service pumping station in 1907 were \$168.78. The pumping expenses at the main pumping station in 1907 were \$17,589.35. The pumping expenses at the high service pumping station in 1907 were \$5,249.71.

### BUILDINGS.

The buildings at both pumping stations, also the storage house, are all in fairly good condition,



### DISTRIBUTING SYSTEM.

The cast iron mains are in fairly good condition, except five or six miles, which are too small and should be replaced with new and larger pipe as soon as possible.

The wrought iron mains, of which there are about three and one-half miles, are in bad condition, and should be replaced with new and larger pipe in the near future.

The street valves and fire hydrants are in good condition.

In 1907 12,644 feet of new mains were laid, 62 street valves placed, and 10 new fire hydrants set. This makes a total of 310,976 feet, or 58 and four-fifths miles of main pipes, 729 street valves, and 404 fire hydrants in use December 31, 1907.

### PLUMBING DEPARTMENT.

During the past year 797 curb stops, 144 corporation stops, and 483 curb boxes were put in to replace worn out ones; 549 service pipes were cleaned out, 220 service pipes were repaired, 71 raised, 89 lowered, 106 replaced, and 39 enlarged; 137 fire hydrants, 2 street valves, and 18 broken street mains were repaired.

### METER SYSTEM.

There are now in use in the city a total of 1,535 meters, or 147 more than in 1906. The following table shows the number and sizes of meters in use :

NAME OF METER.	SIZE OF METERS.											T'l.
	$\frac{3}{8}$	$\frac{1}{2}$ - $\frac{5}{8}$	$\frac{3}{4}$	1	1½	2	3	4	6			
Crown .....	18	646	48	35	3	6	4	...	...	...	...	760
Pittsburg & Keystone.....	...	56	15	12	8	1	1	1	...	...	...	94
Hersey.....	...	88	1	3	...	1	...	...	...	...	...	93
Worthington .....	...	5	1	...	1	...	1	...	...	...	...	8
Westinghouse .....	...	15	...	...	...	...	...	...	...	...	...	15
Empire .....	...	397	50	19	9	9	2	1	...	...	...	487
Trident.....	...	28	2	...	...	1	...	...	...	...	...	31
Union .....	...	36	...	...	...	...	...	...	...	...	...	36
Davies.....	...	2	...	...	...	...	...	...	...	...	...	2
Thompson.....	...	3	...	...	...	...	...	...	...	...	...	3
Gem .....	...	...	...	...	...	1	...	...	3	...	...	4
Nash .....	...	1	...	...	...	...	...	...	...	...	...	1
Register on Elevators .....	1	...	...	...	...	...	...	...	...	...	...	1
Total .....	1 18	1277	117	69	21	19	8	2	3	...	...	1535



# PUMPING RECORD—1907.

1907.	BLAKE ENGINES.		WILSON-SNYDER ENGINES.		TOTAL NO. OF GALLONS PUMPED EACH MONTH.	AVERAGE NO. OF GALLONS PUMPED EACH DAY.	TOTAL TIME.	AV'G.	
	PUMP'G TIME, Hours.	GALLONS OF WATER PUMPED.	PUMP'G TIME, Hours.	GALLONS OF WATER PUMPED.				Hours.	Minutes.
January.....	735	136,205,300	37	3,133,255	139,338,555	4,494,792	744 24	....	....
February.....	653	137,172,280	63	7,961,275	145,133,555	5,183,341	672 24	....	....
March.....	616	115,465,420	272	28,731,275	144,196,695	4,651,506	696 22 27	....	....
April.....	507	118,371,680	284	26,180,920	144,552,600	4,818,420	720 24	....	....
May.....	695	131,799,920	74	6,420,610	138,220,530	4,458,726	744 24	....	....
June .....	716	133,543,540	8	797,635	144,341,175	4,811,372	720 24	....	....
July .....	716	146,361,740	109	10,978,285	157,340,025	5,075,484	716 23 54	....	....
August.....	704	154,205,800	58	5,878,150	160,083,950	5,163,998	732 23 36	....	....
September .....	720	150,819,020	62	6,804,185	157,623,205	5,254,106	720 24	....	....
October.....	720	137,133,500	174	17,818,315	154,951,815	4,998,445	744 24	....	....
November .....	700	139,503,420	31	3,130,240	142,633,660	4,754,455	700 23 20	....	....
December.....	741	139,330,040	33	3,213,990	142,484,030	4,596,259	744 24	....	....
Total.....	8,223 1	1,639,911,660	1,205	121,048,135	1,770,899,795	4,851,780	8,652 23 42	....	....

Average pumping time per day, 23 hours, 42 minutes.

## COMPARATIVE STATEMENTS.

In 1907 the total amount of water pumped was 1,770,899,795 gallons; in 1906 the amount of water pumped was 1,614,735,375 gallons; an increase of 56,164,420 gallons.

Income of receipts per 1,000,000 gallons pumped: 1906, \$45.50; 1907, \$41.07.

Cash receipts of the Water Department from 1892 to 1907, both inclusive:

1892.....	\$34,386.90
1893.....	37,139.85
1894.....	40,334.52
1895.....	35,362.75
1896.....	37,472.99
1897.....	40,433.52
1898.....	43,861.35
1899.....	45,952.09
1900.....	50,531.74
1901.....	57,716.17
1902.....	61,782.27
1903.....	66,044.26
1904.....	66,353.51
1905.....	72,062.96
1906.....	73,744.44
1907.....	72,740.04

	1906.	1907.
Average daily consumption per capita, (40,000 population estimated)....	110½ gal.	121 gal.

Expenditures for maintenance and operation per 1,000,000 gallons pumped, \$24.07.

# Statistics of the Water Works for Each Year Since Commencement.

Year—Date.	GALLONS PUMPED.	WATER RENTS.	MAIN- TENANCE.	CON- STRUCTION.	WATER METER ACCT.	
					Receipts.	Expendi- tures.
First, 1883 .....	143,770,256 \$	8,401.87 \$	6,278.80	\$104,391.00		
Second, 1884 .....	217,487,230	8,071.09	5,358.97	30,362.12		
Third, 1885 .....	250,247,822	11,778.92	5,094.71	5,970.10		
Fourth, 1886 .....	262,708,810	13,757.71	4,265.77	4,720.89		
Fifth, 1887 .....	396,972,407	15,864.20	6,788.48	16,819.97		
Sixth, 1888 .....	567,009,393	18,472.68	9,660.15	23,641.94		
Seventh, 1889 .....	684,163,754	21,032.65	10,673.04	33,059.73		
Eighth, 1890 .....	1,044,826,459	22,418.85	15,468.70	20,623.49		
Ninth, 1891 .....	792,870,195	25,645.16	16,820.78	8,298.17		
Tenth, 1892 .....	976,963,251	31,575.20	21,765.36	6,117.56		
Eleventh, 1893 .....	1,401,826,060	34,721.03	28,742.36	41,533.62		
Twelfth, 1894 .....	1,230,879,120	39,453.92	24,964.12	5,771.00		
Thirteenth, 1895 .....	1,471,417,615	35,362.75	31,364.70	2,007.61		
Fourteenth, 1896 .....	1,352,528,575	36,736.24	23,829.94	9,064.10 \$	736.75	\$ 1,314.63
Fifteenth, 1897 .....	1,040,898,095	38,448.31	18,258.16	29,540.88	1,785.21	2,122.98
Sixteenth, 1898 .....	769,073,825	40,847.10	17,685.86	25,502.57	819.50	3,138.57
Seventeenth, 1899 .....	840,930,330	42,082.22	19,745.27	24,567.47	1,232.00	1,280.52
Eighteenth, 1900 .....	913,945,110	47,164.97	25,594.60	27,548.64	917.00	1,524.57
Nineteenth, 1901 .....	1,004,213,751	53,605.49	27,552.15	12,475.95	1,747.75	1,029.32
Twentieth, 1902 .....	1,367,072,596	56,158.72	30,806.09	26,906.05	1,444.75	2,292.99
Twenty-first, 1903 .....	1,342,189,175	58,916.65	38,429.07	16,299.90	2,577.00	2,516.65
Twenty-second, 1904 .....	1,539,282,342	56,811.65	42,195.50	27,418.38	2,476.75	2,624.34
Twenty-third, 1905 .....	1,686,870,720	63,687.02	40,756.54	33,499.69	2,921.50	3,673.48
Twenty-fourth, 1906 .....	1,614,735,375	65,783.86	37,322.28	15,845.62	2,477.00	2,398.95
Twenty-fifth, 1907 .....	1,770,899,795	66,548.88	38,873.19	22,540.32	2,566.50	4,024.27
Total .....	24,673,777,061	\$813,247.14	\$548,278.59	\$575,545.97	\$21,701.71	\$27,941.28

A full detailed report of the finances of the Water Department is given in the report of the Secretary, D. S. Tobin.

Respectfully submitted,

T. H. VERNER,  
Superintendent.



# Report of Secretary.

McKeesport, Pa., January 1, 1908.

To the Honorable Board of Water and Lighting Commissioners,  
City of McKeesport.

Gentlemen:—I herewith submit my annual report of the financial affairs of the Water Department for the year beginning January 1, 1907, and ending December 31, 1907, as follows, viz.:

## RECEIPTS FROM ALL SOURCES.

By schedule rates.....	\$ 39,557 86	
Meter rates.....	26,991 02	
Special uses.....	445 86	
Permit fees.....	2,634 85	- Chg
Penalties.....	10 00	- "
Meters sold.....	2,566 50	
Miscellaneous.....	533 95	\$ adn
Total .....		\$ 72,740 04
Paid City Treasurer.....		72,740 04
Cash Receipts.....		72,740 04

## CREDITS DUE THE DEPARTMENT.

404 fire hydrants at \$40.00 each.....	\$ 16,160 00	
Five public fountains at \$75.00 each.....	375 00	
Three fire stations at \$40.00 each.....	120 00	
One police station.....	40 00	
One street department stable.....	36 00	
One garbage furnace.....	200 00	
McKeesport Hospital.....	250 00	- 1st
Y. M. C. A.....	200 00	- "
Carnegie Library.....	50 00	city Stram
Coursin heirs, Tenth ward, for privileges.....	4 00	Rent
Fifth Avenue Bridge Co.....	9 00	mis
McKeesport & Versailles Cemetery.....	32 50	donation
Street washing.....	3,000 00	Stram
Total .....		\$ 20,476 50
Total .....		\$ 93,216 54



## EXPENDITURES FOR 1907.

### MAINTENANCE ACCOUNT.

Incidental repairs and expense.....	\$ 248 96	
Office expenses.....	4,495 64	
Pumping expense, main station.....	17,589.35	
Pumping expense, high service station.....	5,249 71	
Repairs, main station.....	1,517 54	
Repairs, high service station.....	168 78	
Plumbing department.....	9,603 21	
Total cost of maintenance.....		\$ 38,873 19

### CONSTRUCTION ACCOUNT.

Distributing mains..... <i>Sub 6000.00</i>	\$ 13,455 34	
Plumbing department.....	8,588 53	
Land and buildings.....	446 45	
Machinery, main station. ....	50 00	
Total cost of construction.....		\$ 22,540 32

### METERS.

New meters.....	\$ 3,002 60	
Meter repairs.....	1,021 67	
Total cost of meters.....		\$ 4,024 27
Water for Tenth ward.....		4,014 23
Total expenditures for the year.....		\$ 69,452 01
Unexpended balance Jan. 1, 1907.....	\$ 9,994 45	
Appropriation, City of McKeesport.....	65,000 00	
Transferred .....	3,383 33	
Unexpended balance Jan. 1, 1908.....		8,925 77
	\$ 78,377 78	\$ 78,377 78

### RECAPITULATION.

Total cash receipts for the year.....	\$ 72,740 04	
Cost of maintenance and operation.....	38,873 19	
Cash received in excess of maintenance and operation .....		\$ 33,866 85
Total amount of receipts and credits.....	\$ 93,216 54	
Total amount of expenditures.....	69,452 01	
Net amount of receipts and credits over all expenditures .....		\$ 23,764 53
Expended for construction .....		\$ 22,540 32

1,224.21

## COMPARATIVE STATEMENT.

Receipts for 1907.....	\$ 72,740 04	
Receipts for 1906.....	73,744 44	
Decrease .....		\$ 1,004 40

## EXPENDITURES.

Expended for construction, 1907.....	\$ 22,540 32	
Expended for construction, 1906.....	15,845 62	
Increase .....		\$ 6,694 70
Expended for maintenance and operation, 1907..	\$ 38,873 19	
Expended for maintenance and operation, 1906.	37,322 28	
Increase.....		\$ 1,550 91
Expended for meters and meter repairs, 1907..	\$ 4,024 27	
Expended for meters and meter repairs, 1906..	2,398 95	
Increase.....		\$ 1,625 32
Expended for water, Tenth ward, 1907.....	\$ 4,014 23	
Expended for water, Tenth ward, 1906.....	5,376 36	
Decrease .....		1,362 13

## WATER SOFTENING AND FILTRATION PLANT.

Filtration bond fund.....	\$200,000 00
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## EXPENDITURES.

## CONSTRUCTION ACCOUNT.

Softening plant.....	\$ 46,162 86	
Filtration plant .....	9,706 06	
Boilers .....	4,162 00	
New water mains .....	21,485 87	
Engineering.....	5,172 86	
Miscellaneous improvements and repairs.....	1,376 70	
Total expense.....		\$ 88,066 35
Balance in filtration bond fund.....		\$111,933 65

## BONDED DEBT.

Amount issued water works.....	\$102,000 00	
Filtration plant .....	200,000 00	\$302,000 00
Bonds cancelled, water works.....	\$ 95,300 00	
Cash in water works sinking fund.....	3,731 39	
Cash in filtration plant sinking fund .....	13,100 00	\$112,131 39
Net bonded debt.....		\$189,868 61

Respectfully submitted,

D. S. TOBIN, Secretary.

## Schedule No. 1.

### Main Pipes Laid in 1907.

#### ONE-INCH WROUGHT IRON PIPE.

Streets and Location.	Feet.
Beaver street, from end of line west.....	72
Cliff street, from end of line south.....	164
Patterson avenue, from end of 4-inch line to Boyd street.....	185
Boyd street, from Patterson avenue west.....	187
Parker street, from end of 2-inch line south.....	188
Atcheson street, from end of 4-inch line west.....	40
Unnamed alley, from Youghiogheny avenue south.....	200
Ridge avenue, from Versailles avenue south.....	150
Total .....	1,186

#### FOUR-INCH CAST IRON PIPE.

Harrison street, from end of line north .....	219
Library street, from end of line to Beech street.....	115
Parker street, from end of line south.....	145
Forest street, from end of line south.....	238
Front street, from Youghiogheny avenue north.....	106
Manning avenue, from Havilla to Monroe.....	383
Havilla street, from Archer to Manning.....	288
Manning avenue, from Monroe street south.....	703
Patterson avenue, from Versailles street north.....	72
South Park street, from Twelfth street to Bridge street.....	620
Rebecca street, from Atlantic avenue north (relaid).....	468
For By-pass, Market and Thirteenth street.....	21
Railroad street, from Thirteenth street north.....	16
Sill avenue, from Orchard street west.....	125
Beech street, from end of line north.....	109
(Special) for garbage furnace.....	120
For fire hydrant on Library avenue.....	6
For fire hydrant on Railroad street.....	5
Total.....	3,759



## SIX-INCH CAST IRON PIPE.

<b>Streets and Location.</b>	<b>Feet.</b>
Sill avenue, from Hamilton to end of line.....	230
Hamilton avenue, from Sill avenue to Green street.....	540
Green street, from Hamilton west.....	135
Parker street, from Beaver to Grover.. ..	260
Grover street from Parker street east .....	190
Centennial avenue, from Fifteenth street west .....	85
Franklin street, from end of line south.....	691
Versailles avenue, from Union avenue east to viaduct.....	449
Versailles avenue, from end of line west to viaduct.....	198
Bridge street, from Versailles avenue south .....	15
Union avenue, from Versailles avenue north.....	73
Rebecca street, from Atlantic avenue south (relaid).....	120
River street, from end of line to Duquesne avenue.....	166
Orchard street, from end of line to Sill avenue.....	111
Fifteenth street, from Huey to Centennial.....	227
Library avenue, from Union west (to connect).....	114
Railroad street, at ice plant .....	25
Total.....	3,629

## EIGHT-INCH CAST IRON PIPE.

For By-pass, Walnut and Thirteenth street.....	27
Tube Works street, from Shaw avenue south.....	220
Total .....	247

## TWELVE-INCH CAST IRON PIPE.

Ash street, from Fifth avenue to Sylvan avenue.....	285
Sylvan avenue, from Ash street to Elm.....	360
Elm street, from Sylvan avenue to valve.....	12
Total.....	657

## SIXTEEN-INCH CAST IRON PIPE.

Market street, from Thirteenth street north.....	35
Thirteenth street, from Market street to Walnut street.....	429
Total.....	464

## TWENTY-INCH CAST IRON PIPE.

Railroad street, from pump station to Thirteenth street.....	1,503
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## TWENTY-FOUR-INCH CAST IRON PIPE.

Pump station to filtration plant.....	646
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## THIRTY-INCH CAST IRON PIPE.

Pump station to filtration plant.....	553
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## Schedule No. 2.

FIRE HYDRANTS SET IN 1907.

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1. Corner Hamilton street and Sill avenue.
2. Corner Hamilton street and Green street.
3. Corner Front street and Houghton avenue.
4. At city stables, Railroad street.
5. Corner Manning avenue and Monroe street.
6. Corner Manning avenue and Lysle street.
7. Corner Centennial and Fifteenth street.
8. Corner Boyle street and Franklin avenue.
9. Corner River street and Duquesne avenue.
10. On Library avenue near Union avenue.

### Schedule No. 3.

#### STREET VALVES PLACED IN 1907.

Streets and Location.	Size in Inches.
On Sill avenue west line of Hamilton avenue.....	6
On fire hydrant line, Sill avenue and Hamilton avenue.....	4
On Hamilton avenue, north line of Green street.....	6
On Hamilton avenue, north line of Florence street.....	6
On fire hydrant line at corner of Hamilton and Green street....	4
On Parker street, north line of Beaver street.....	6
On Grover street, east line of Parker street.....	6
On Harrison street, south line of Randal street.....	4
On Manning street, south line of Havilla street.....	4
On Manning street, north line of Monroe street.....	4
On Havilla street, east side of Archer street.....	4
On Library street, west line of Beech street .....	4
On fire hydrant line at corner of Front street and Houghton....	4
On Manning street, north line of Lysle.....	4
On fire hydrant line, corner of Manning and Monroe streets.....	4
On Centennial street, west line of Fifteenth street.....	6
On Park street, south line of Twelfth street.....	4
On Park street, north line of Bridge street.....	4
On fire hydrant line on Park street.....	4
On Franklin street, east line of Boyle street .....	6
On Franklin street, east line of Orchard street.....	6
On fire hydrant line at corner of Boyle and Franklin streets....	4
On Versailles avenue, east line of Union avenue.....	6
On Versailles avenue, 30 feet west of viaduct.....	6
On Versailles avenue, east end of viaduct.....	6
On Union avenue at the corner of Versailles avenue.....	6
On by-pass at the corner of Market and Thirteenth streets.....	4
On north side of by-pass, Market and Thirteenth streets .....	4
On Market street, north line of Thirteenth street.....	4
On Thirteenth street, east line of Market street .....	16
On Thirteenth street, east line of Railroad street .....	16

Streets and Location.	Sizes in inches.
On Railroad street, north line of Thirteenth street.....	4
On by-pass at the corner of Railroad and Thirteenth streets.....	4
On Thirteenth street, east of B. & O. railroad.....	16
On by-pass at the corner of Walnut and Thirteenth streets.....	8
On Walnut street, north of by-pass.....	8
On Walnut street, south of by-pass.....	8
On Thirteenth street, east line of Walnut street.....	16
On River street, west line of Duquesne avenue.....	6
On fire hydrant line at corner of River and Duquesne avenue....	4
On Orchard street, east line of Sill avenue.....	6
On Beech street, north line of Library avenue.....	4
On fire hydrant line at the corner of Beech and Library avenue.	4
On Fifteenth street, south line of Huey street.....	6
On Fifteenth street, north line of Centennial street.....	6
On fire hydrant line, corner of Thirteenth and Railroad streets.	4
On Evans avenue, south line of Versailles avenue.....	6
On Tube Works street, south line of Shaw avenue .....	8
On Tube Works street at opera house.....	8
On fire hydrant line on Library avenue near Union avenue.....	4
On Ash street, north line of Fifth avenue.....	12
On Sylvan avenue, east line of Ash street.....	12
On Elm street, north line of Sylvan avenue.....	12
On Fifth avenue at Ash street .....	12
On blow-off at the corner of Fifth avenue and Ash street .....	6
On line to ice plant on Railroad street.....	4
On Railroad street, south line of Thirteenth street.....	20
On Railroad street at treating plant.....	24
On rising main, east line of Railroad street.....	16
On rising main, west line of Railroad street.....	16
On Railroad street, north side of rising main.....	20
On Railroad street, south side of rising main.....	20

## Summary

### Of Mains, Valves and Fire Hydrants.

#### MAINS—WROUGHT IRON.

Sizes in Inches.	Previously Reported.	Laid in 1907.	Total, Dec. 31, 1907.
1 .....	5,028 feet .....	1,186 feet .....	6,214 feet
2 .....	3,655 feet .....	.....	3,655 feet
3 .....	362 feet .....	.....	362 feet
4 .....	2,124 feet .....	.....	2,124 feet
6 .....	5,789 feet .....	.....	5,789 feet
8 .....	965 feet .....	.....	965 feet
10 .....	1,593 feet .....	.....	1,593 feet
Total.....	19516 feet	1,186 feet	20,702 feet

#### MAINS—CAST IRON.

Sizes in Inches.	Previously Reported.	Raised in 1097.	Laid in 1907.	Total, Dec. 31, 1907.
4 .....	134,477 feet .....	468 feet .....	3,759 feet .....	137,768 feet
6 .....	88,184 feet .....	120 feet .....	3,629 feet .....	91,693 feet
8 .....	27,042 feet .....	.....	247 feet .....	27,289 feet
10 .....	1,004 feet .....	.....	.....	1,004 feet
12 .....	20,187 feet .....	.....	657 feet .....	20,844 feet
16 .....	5,581 feet .....	.....	464 feet .....	6,045 feet
20 .....	2,341 feet .....	.....	1,503 feet .....	3,844 feet
24 .....	.....	.....	646 feet .....	646 feet
30 .....	.....	.....	553 feet .....	553 feet
Total.....	278,816 feet	588 feet	11,458 feet	289,686 feet

Total wrought iron mains..... 20,702 feet  
Total cast iron mains..... 289,686 feet  
Total ..... 310,388 feet  
Or 58 and four-fifths miles.



## VALVES.

Sizes in Inches.	Previously Reported.	Set in 1907.	In Use Dec. 31, 1907.
2 .....	14 .....	.....	14
4 .....	325 .....	25 .....	350
6 .....	217 .....	18 .....	235
8 .....	56 .....	5 .....	61
10 .....	5 .....	.....	5
12 .....	30 .....	4 .....	34
16 .....	9 .....	6 .....	15
20 .....	4 .....	3 .....	7
24 .....	.....	1 .....	1
Total.....	660	62	722

## FIRE HYDRANTS.

	Previously Reported.	Set in 1907.	In Use Dec. 31, 1907.
Public.....	394 .....	10 .....	404
Private.....	14 .....	.....	14
Total.....	408	10	418

Schedule of Water Rates.

Water used on the following named service must be metered :

- |                            |                                  |
|----------------------------|----------------------------------|
| Hotels,                    | Laundries,                       |
| Breweries,                 | Green Houses,                    |
| Bottling Houses,           | Machine Shops,                   |
| Foundries,                 | Dyeing and Renovating Estab-     |
| Printing offices,          | lishments,                       |
| Skating Rinks,             | Clubs, Livery, Boarding or Hotel |
| Slaughter Houses,          | Stables,                         |
| Yard Fountains,            | Public Baths,                    |
| Steam Engines and Boilers, | Counter Fountains,               |
| Brick Yards,               | Acquariums,                      |
| Saloons,                   | Hydraulic Motors,                |

And all manufacturing establishments, and all services where waste water from sinks is used to flush water closets in houses or cellars.

METER RATES.

When the quantity of water used is ascertained by meter, the charges shall be as follows :

From 1 to 666 cubic feet in three months, lump sum \$1.00.  
From 666 cubic feet to 2,500 cubic feet in three months, add \$1.00 for first 666 cubic feet and 15 cents for each additional 100 cubic feet.

Over 2,500 cubic feet and up to 12,500 cubic feet in three months, add \$3.75 for the first 2,500 cubic feet and 10 cents for each additional 100 cubic feet.

Over 12,500 cubic feet in three months, add \$13.75 for first 12,500 cubic feet and 5 cents for each additional 100 cubic feet.

DWELLING HOUSES.

Occupied by One Family Only.

	Per Annum
For first faucet or hydrant .....	\$ 5 00
For each additional faucet or hydrant.....	2 50
For first bath tub .....	4 00

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For each additional bath tub .....	3 00
For the first pan or self-acting water closet, or any other form approved by the Water Committee, other than continuous flowing.....	4 00
For each additional water closet, same description.....	3 00
For each continuous flowing hopper water closet, provided with one-sixteenth-inch disc in branch pipe.....	20 00
For use of hose see "Hose" .....	

When two faucets are used, one for hot and one for cold water, both emptying into one vessel, the charge shall be for one faucet.

Where water is supplied to a premises for a bath tub, hose connection or other specific purpose alone, said fixtures will be subject to all charges for domestic or other uses that said fixtures may be applicable.

## DWELLING HOUSES.

### Two or More Families.

For two or more families occupying the same house, or separate houses upon the same premises, and all using the same faucet or hydrant, each family.....	\$ 5 00
For each family in a tenement having separate fixtures, the same as if living in a separate house.	
When a faucet or hydrant is used in common for washing by two or more families on the same premises, each family having one, at least, additional, the additional charge to each shall be .....	2 00
For two or more families using the same bath tub, for the first family.....	4 00
For each additional family.....	3 00
For two or more families using the same pan or self-acting water closet, for the first family.....	4 00
For each additional family.....	3 00
For each water closet, continuous flow, disc not more than one-sixteenth-inch.....	20 00

## BOARDING HOUSES.

The family shall pay family rates upon all fixtures, and in addition thereto the following:

For from four to eight boarders, in addition.....	\$ 4 00
For over eight boarders.....	6 00
For each bath tub used by boarders.....	3 00



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For each water closet, pan or self acting.....	3 00
For urinals, each.....	4 00

Private families having four or more boarders shall be rated as boarding houses.

For a house occupied solely by lodgers, the charge on each lodging room so let shall be.....	2 00
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## STORES, OFFICES, ETC.

Families Separate at Family Rates.

	Per Annum
For each tenement occupied as a store, bank, office, warehouse or small shop, or for a purpose not in any other classification, not requiring an unusual supply of water, without hose, for first faucet or hydrant.....	\$ 4 00
For each tenement occupied as above, without fixtures, but accessible on premises.....	2 00
For each additional faucet or hydrant.....	4 00
Drug stores, first faucet or hydrant.....	8 00
Drug stores, each faucet or hydrant additional.....	4 00
Drug stores, tumbler washers, automatic.....	4 00
Drug stores, without fixtures, but accessible on premises....	6 00
Bakeries, one faucet.....	8 00
Bakeries, without fixtures.....	6 00
Fish, meat markets or shops, first faucet or hydrant....	10 00
Fish, meat market or shop, each faucet or hydrant additional.	5 00
Same, without fixtures, but on premises... ..	5 00
Restaurant, dining and all other saloons, first faucet. ....	10 00
Same, for each additional faucet.....	4 00
Same, without fixtures, but on premises.. ..	8 00
Restaurant, dining and all other saloons, each water closet.	5 00
Barber shops, first faucet.....	8 00
Same, for each additional faucet.....	4 00
Same, without fixtures, but accessible on premises.....	6 00
Photograph galleries, first faucet.....	10 00
Same, for each additional faucet....	5 00
Same, without fixtures.....	5 00
Blacksmith shop, first faucet or hydrant.....	5 00
Same, each additional faucet or hydrant.....	2 00
Same, without fixtures.....	4 00
Billiard rooms and bowling alleys, first faucet .....	8 00
Same, for each additional faucet.....	4 00
Same, without fixtures.....	6 00
Billiard rooms and bowling alleys, water closets, each .....	6 00



## LODGE AND CLUB ROOMS.

	Per Annum
Each room occupied by one lodge or by one club, with or without faucet in room.....	4 00
Two or more lodges or clubs occupying the same room, each.	2 00
Water closets, exclusive for one lodge or club. ....	3 00
Water closets, two or more lodges or clubs, each lodge or club.	1 50
Urinals, one or more lodges or clubs, each urinal..	4 00
The above is for lodges and clubs meeting weekly; meeting monthly one-fourth the above rates.	

## PUBLIC HALLS.

For the first faucet.....	\$ 10 00
For each additional faucet.....	6 00
For first water closet, pan or self-acting.....	8 00
For each individual water closet.....	4 00
For each urinal.....	4 00

## PRIVATE STABLES.

For one or two horses, including washing carriage with hose..	\$ 4 00
For each additional horse, same as above....	1 50
For use of hose for washing carriages, one or two carriages.	4 00
For each additional carriage.....	1 50
For each cow or ox.....	1 00

## SCHOOLS, PUBLIC AND PRIVATE.

For average number in attendance, without regard to faucet, each person, per annum.....	05
For each water closet, pan or self-acting.....	2 00
For each water closet, constant flow, one-sixteenth-inch disc in branch pipe..	20 00

## HOSE.

No contract for use of hose for less term than one year.	
For the use of hose for washing windows and other similar uses inside of premises, including watering gardens or lawns for less than 5,000 square feet .....	
	\$ 4 00
For washing outside pavements, fronts, etc., and for sprinkling streets in front of premises, as follows:	
Dwelling houses, lot 40 feet front or less.....	4 00
Dwelling houses, lot 40 feet front or less, on corner .....	6 00
Dwelling houses, lot 40 feet front, per foot additional.....	10
Business houses, lot 20 feet front or less .....	4 00

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Business houses, lot 20 feet or less, on corner .....	6 00
Business houses, lot 20 feet front, per foot additional.....	20

Use of hose without nozzle is strictly prohibited except when meter is used.

No hose to have a nozzle to exceed  $\frac{1}{4}$  of an inch in diameter, except where meter is used.

BUILDING PURPOSES.

For 1,000 bricks, wetting and making mortar.....	\$ 06
For stone masonry, per perch . . . . .	03
For 100 square yards plastering .....	20

Quantities and uses to be fully stated at the time of application, and all bills payable on demand.

For purposes not named in this schedule, and for all special or peculiar uses of water, special assessments or contracts for measured or estimated water may be made by the superintendent.

The above rates are subject to such alterations and amendments as may from time to time be adopted by the Board of Water and Lighting Commissioners and approved by Councils.

Approved by Council, March 14, 1898.

### Cost of Service Permits.

Width of Street.	Width of Pavement.	Width of Roadway.	Average Lineal Feet Service Pipe.	1/2-inch Pipe.	5/8-inch Pipe.	3/4-inch Pipe.	One-inch Pipe.
80 feet	12 feet	56 feet	29 feet	\$12 90	\$14 35	\$15 85	\$19 65
80 "	18 "	44 "	23 "	11 00	12 30	13 60	16 85
60 "	9 "	42 "	22 "	10 70	11 95	13 20	16 35
60 "	12 "	36 "	19 "	9 80	10 95	12 10	14 95
50 "	10 "	30 "	16 "	8 85	9 90	10 95	13 45
40 "	8 "	24 "	13 "	7 90	8 85	9 80	12 15
33 "	6 1/2 "	20 "	11 "	7 30	8 15	9 05	11 20
30 "	6 "	18 "	10 "	7 00	7 80	8 65	10 70
20 "		18 "	9 "	7 00	7 80	8 65	10 70
Branches Additional.....				4 00	4 25	4 45	4 90

Above one inch to be estimated by the superintendent.

### Cost of Setting Meters.

3/8-inch Meter .....	\$2.50
5/8-inch and 3/4-inch Meter.....	3.00
One-inch Meter .....	3.50
1 1/2 and 2-inch Meter.....	5.00

All above 2 inches to be estimated by the superintendent.

### Meter Rents.

5/8-inch Meter.....	\$1.00 per quarter
3/4-inch Meter.....	1.65 per quarter
1-inch Meter.....	2.00 per quarter
1 1/2-inch Meter.....	3.50 per quarter
2-inch Meter.....	4.25 per quarter

All above 2 inches to be estimated by the superintendent.



**Table Showing the Water Pressure in the Mains at  
Various Points of Location and Eleva-  
tions Throughout the City.**

LOCATION.	Elevation of Loca- tion above City Datum.	Water Pressure per square in., taken Dec., 1901.
	FEET.	LBS.
Market street, corner First avenue .....	75	108
Market street, corner Third avenue.....	88	100
Market street, corner Fifth avenue.....	92	103
Market street, corner Seventh avenue.....	88	106
Market street, corner Buena Vista street. ....	88	100
Market street, corner Eleventh avenue.....	80	108
Rose street, corner Eleventh avenue. ....	76	118
Walnut street, corner First avenue.....	76	108
Walnut street, corner Second avenue.....	87	106
Walnut street, corner Fifth avenue.....	91	104
Walnut street, corner Ninth avenue. ....	98	106
Walnut street, corner Twelfth avenue.....	95	106
Locust street, corner Twelfth avenue.....	125	95
Locust street, corner Fourteenth street.....	178	75
Jenny Lind street, corner Spring street.. ....	149	85
Jenny Lind street, below Fourteenth street ...	234	60
Huey street, corner Olive street .....	218	56
Highland avenue, corner Madison street.....	232	54
Highland avenue, corner Petty street.....	256	42
Union avenue, corner Sixth avenue.....	178	76
Union avenue, corner Eighth avenue.....	236	56
Union avenue, corner Tenth avenue.....	257	44
White street, corner Shaw avenue.....	115	102
Martin street, corner Third avenue.....	85	112
Hazel street, corner Arch street .....	105	92
Second street, near Water street.....	79	115
Electric light Station.....	86	110
North Diamond street, corner Blackberry alley.	92	110
Fourth avenue, corner Huey street.....	88	108
Fourth avenue, corner Martin street.....	92	110
Fifth avenue, corner Water street.....	76	112
Fifth avenue, corner Sinclair street .....	92	104
Fifth avenue, corner Sheridan street.....	102	100
Fifth avenue, corner Huey street.....	99	100
Fifth avenue, corner Coursin street.....	116	100
Fifth avenue, corner Center street.....	104	104
Fifth avenue, corner Brown alley.....	95	108



**Table Showing the Water Pressure in the Mains at  
Various Points of Location and Eleva-  
tion Throughout the City.**

LOCATION.	Elevation of Loca- tion above City Datum.	Water Pressure per square in., taken Dec., 1901.
	FEET.	LBS.
Fifth avenue, corner Riverton street.. .. .	95	110
Fifth avenue, corner Ash street.....	77	118
Fifth avenue, at city line....	119	100
Shaw avenue, corner Jenny Lind street.....	128	92
Shaw avenue, corner Huey street.....	183	68
Shaw avenue, corner Coursin street.....	171	74
Olive street, corner Locust street.....	118	95
Ninth street, corner Mulberry alley .....	87	112
Whigham street, corner Locust street .....	119	94
Foot of Thirteenth street .....	75	118
Versailles avenue, corner Fulton street .....	259	45
Bowman avenue, at Cronemeyer residence.....	264	40
Havekotte's store, at Demmler station.....		105
Walnut street, corner Sixteenth street .....	112	110
Walnut street, corner Penny avenue.....	100	118
Walnut street, corner Brown avenue.....	91	118
Walnut street, corner Sill street.....	96	118
Blaine street, corner Juniata street .....		122
Houghton avenue, corner Beale street.....	117	110
Patterson avenue, corner Beale street.....	137	100
At Main Pumping Station.....		118
Fawcett street, corner Robinson street.....	277	30
Hospital .....		81

T. H. VERNER,  
Superintendent.

100  
100